

**REMARKS**

Claims 1 and 2 are amended.

Claim 1 is rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which is being regarded as the invention.

Claims 1-51 are rejected under 35 U.S.C. §102(e) as being anticipated by Babcock, et al. (U.S. Patent No. 6,902,851). Claims 1-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka, et al. (U.S. Patent No. 6,656,645), in view of Babcock, et al. or Kokubo (U.S. Patent No. 6,627,359).

Regarding the §112 rejection against claim 1, claim 1 is amended, and as amended, Applicant submits the rejection is rendered moot. However, in case the Examiner is not convinced, Applicant presents the following argument to demonstrate the rejection is improper, to demonstrate claim 1 as originally filed was definite, and to clarify that the claim was not amended in response to the §112 rejection.

The Examiner states the claim recitation to “suitable of attenuation” is indefinite because “it is unclear if anything has been done to the mask to change its attenuation at the longer wavelength.” (pg. 2 of paper no. 20051223). Respectfully, this question is not the test for definiteness. Moreover, whether Applicant desires to claim subject matter directed to “if anything has been done to the mask” is solely up to the Applicant and has absolutely no relevance as to whether the claim is definite. The Examiner is improperly demanding, via an improper rejection, that Applicant add limitations to his claim.

Regarding a §112 rejection, the Examiner is respectfully reminded "[a] fundamental principle contained in 35 U.S.C. §112, second paragraph is that applicants are their own lexicographers [and] [t]hey can define in the claims what they regard as their invention essentially in whatever terms they choose...." MPEP §2173.01 (8th ed., rev. no. 3, vol. 2).

The Examiner is further reminded that as the MPEP clearly states, "the examiner's focus...for definiteness is...whether the claim meets the threshold requirements of clarity and precision, not whether more suitable language or modes of expression are available (emphasis added)...[and that threshold is] with a reasonable (emphasis in quote) degree of particularity and definiteness. Some latitude in the manner of expression and the aptness of terms should be permitted even though the claim language is not as precise as the examiner might desire." (MPEP §2173.02 (8th ed., rev. no. 3, vol. 2)).

The Examiner is respectfully reminded that MPEP §2173.02 (8th ed., rev. no. 3, vol. 2) states the essential inquiry pertaining to a §112, second paragraph requirement is whether the claims set out and circumscribe a particular subject matter with a reasonable degree of clarity and particularity. Definiteness of claim language must be analyzed, not in a vacuum, but in light of:

- (A) the content of the particular application disclosure;
- (B) the teachings of the prior art; and
- (C) the claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made.

In reviewing a claim for compliance with 35 U.S.C. §112, second paragraph, the Examiner must consider the claim as a whole to determine whether the claim apprises one of ordinary skill in the art of its scope and, therefore, serves the

notice function required by 35 U.S.C. §112, second paragraph. (citations omitted) MPEP §2173.02. Applicant submits that the claim is clear and definite on its face, and meets the threshold requirements of clarity and precision. Moreover, one of ordinary skill in the art understands the language of claim 1 without answering the question proposed by the Examiner because the question by the Examiner has no relevance to the clarity and precision of the claim. Additionally, one of ordinary skill in the art having the opportunity to consider and review the contents of the application disclosure, pursuant to the above authority, would clearly understand the language of the claim, particularly considering pages 10-19 of the originally-filed application. These are the appropriate tests or considerations for definiteness, and since Applicant has demonstrated that the language of claim 1 meets these tests, the §112 rejection against claim 1 is improper and should be withdrawn.

Regarding the anticipation rejection against claim 1 as being anticipated by Babcock, the claim is amended to recite wherein the attenuation of the later generation photolithography radiation by the first configuration of the reticle comprises a first attenuation percentage, and wherein the attenuation of the earlier generation photolithography radiation by the second configuration of the reticle comprises a second attenuation percentage, the first attenuation percentage being different from the second attenuation percentage. Support for the amendment language is provided by the originally-filed application at, for example, pages 10-19. Babcock teaches a first attenuation percentage for a single attenuating phase mask, but does not teach a second attenuation percentage to be compared with the first attenuation percentage. Accordingly, it is inconceivable that Babcock teaches or suggests the first attenuation percentage being

different from the second attenuation percentage as positively recited by claim 1. Claim 1 is allowable over Babcock.

Moreover, claim 1 is rejected as being obvious by various combinations of Tanaka, Babcock and Kokubo. Kokubo fails to teach or suggest attenuation percentages, and therefore, it is inconceivable that Kokubo teaches or suggests the above recited limitation of claim 1. Additionally, Tanaka fails to teach or suggest a reticle wherein a first configuration is compared to a second configuration, and therefore, it is inconceivable that Tanaka teaches or suggests the first attenuation percentage being different from the second attenuation percentage as positively recited by claim 1. Since each reference, singularly, fails to teach or suggest the positively recited limitation of claim 1, it is inconceivable that any combination of the references teaches the positively recited limitation of claim 1. Claim 1 is allowable over the various combinations of Tanaka, Babcock and Kokubo.

Claims 2-16 depend from independent claim 1, and therefore, claims 2-16 are allowable for the reasons discussed above with respect to the independent claim.

Dependent claim 8 recites the radiation-attenuating layer consists essentially of zirconium and oxygen. The cited references of Tanaka, Babcock and Kokubo do not teach this positively recited limitation, singularly or in any combination, and therefore, claim 8 is allowable over the cited references. Notably, the Examiner fails to point to teachings in the references directed to this positively recited limitation.

Dependent claim 9 recites the radiation-attenuating layer consists essentially of silicon, nitrogen and oxygen. The cited references of Tanaka, Babcock and Kokubo do not teach this positively recited limitation, singularly or in any combination, and therefore, claim

9 is allowable over the cited references. Notably, the Examiner fails to point to teachings in the references directed to this positively recited limitation.

Independent claims 17, 37 and 45 are rejected over various combinations of Tanaka, Babcock and Kokubo. Independent claim 17 recites the shorter wavelength of radiation being shifted substantially out of phase upon passing through the combined thicknesses of the patterned material and first regions of the substrate material. Independent claim 37 recites a phase of the first radiation being shifted by about 180° as the radiation passes through the combined thicknesses of the patterned material and first regions of the base. Independent claim 45 recites a phase of 193 nm wavelength radiation being shifted by about 180° as the radiation passes through the combined thicknesses of the patterned layer and first regions of the quartz-containing material. That is, these claims recite a **shift of radiation when passing through a combination of patterned material (or layer) and substrate (or base or quartz-containing material)**.

However, Tanaka does not teach or suggest shifting radiation. Babcock teaches a radiation shift through trenches 52 in a layer 34 (col. 5, Ins. 30-40 and Ins. 50-65), but **not through a combination of material and substrate** (or base or quartz-containing material).

Kokubo teaches a radiation shift through recesses in a transparent substrate 110 (col. 8, Ins. 50-67 and col. 9, Ins. 30-45), **not through a combination of material and substrate** (or base or quartz-containing material). Accordingly, it is inconceivable that any one reference, singularly, teaches or suggests radiation is shifted through a combination of patterned material (or layer) and substrate (or base or quartz-containing material) as positively recited by the independent claims. Since none of the references singularly teach or suggest the recited limitations, it is inconceivable that any combination of the references teach or

suggest the recited limitations. Accordingly, independent claims 17, 37 and 45 are allowable over the various combinations of Tanaka, Babcock and Kokubo.

Moreover, independent claim 17 additionally recites after the reduction in thickness, the longer wavelength of radiation being shifted substantially out of phase upon passing through the combined thicknesses of the patterned material and first regions of the substrate material. Independent claim 37 additionally recites after the reduction in thickness of the second regions, the second radiation being shifted substantially out of phase upon passing through the combined thicknesses of the patterned material and first regions of the base. None of the references, singularly or in any combination, teach or suggest these recited limitations of claims 17 and 37, and notably, the Examiner fails to point to specific teachings in the references of these limitations. Accordingly, for this additional reason, independent claims 17 and 37 are allowable over the various combinations of Tanaka, Babcock and Kokubo.

Furthermore, regarding the obviousness rejections against the claims based on the combinations of Tanaka, Babcock and Kokubo, the Examiner relies on "well known in the art" to provide a motivational rationale for combining the references (pg. 6 of paper no. 20051223). The Examiner is reminded, respectfully, that the Federal Circuit has rejected the notion that "well known in the art" can support an obviousness rejection stating that "it is irrelevant in determining obviousness that all or all other aspects of the claim may have been well known in the art." *Jones v Hardy*, 727, F2d 1524, 1527, 1528, 220 USPQ 1021, 1024 (Fed. Cir. 1984). Based on this authority, the obviousness rejections are inappropriate and should be withdrawn.

Claims 18-36, 38-44 and 46-51 depend from the independent claims, respectively, and therefore, claims 18-36, 38-44 and 46-51 are allowable for the reasons discussed above with respect to the independent claims.

This application is believed to be in immediate condition for allowance, and action to that end is respectfully requested. If the Examiner's next anticipated action is to be anything other than a Notice of Allowance, the undersigned respectfully requests a telephone interview prior to issuance of any such subsequent action.

Respectfully submitted,

Dated: 4 - 28 - 06

By:

  
D. Brent Kenady  
Reg. No. 40,045